

*Amendments to the Claims*

1. (Canceled)

2. (Previously Presented) The method of claim 3, wherein said allocating further comprises loading, into memory cells accessible by the multiple graphics processing units, the set of three-dimensional computer graphics data corresponding to the portions of the scene that lie within the rectangular subvolumes to which the multiple graphics processing units have been assigned.

3. (Currently Amended) A method for presenting three-dimensional computer graphics images of a scene using multiple graphics processing units, comprising the steps of:

(1) allocating, to the multiple graphics processing units, a set of three-dimensional computer graphics data such that said allocated set of three-dimensional computer graphics data corresponds to portions of the scene that lie within rectangular subvolumes to which the multiple graphics processing units have been assigned;

(2) determining a viewing position, wherein said determined viewing position determines an aspect of said allocated set of three-dimensional computer graphics data to be rendered;

(3) communicating said determined viewing position to the multiple graphics processing units;

(4) rendering, by the multiple graphics processing units, substantially all of said allocated set of three-dimensional computer graphics data;

(5) combining said rendered set of three-dimensional computer graphics data with image combiners, wherein outputs from the multiple graphics processing units are direct inputs to first stage image combiners and outputs from at least two of the first stage image combiners are direct inputs to a second stage image combiner, thereby producing a three-dimensional computer graphics image; and

(6) presenting, for viewing, said combined three-dimensional computer graphics image.

4. (Previously Presented) The method of claim 3, wherein said combining further comprises the step of:

(5) ordering said rendered set of three-dimensional computer graphics data based on locations between said determined viewing position and the rectangular subvolumes to which the multiple graphics processing units have been assigned.

5. (Previously Presented) The method of claim 3, wherein said combining further comprises the step of:

(5) blending said rendered set of three-dimensional computer graphics data.

6. (Canceled)

7. (Previously Presented) The method of claim 3, wherein each of the image combiners has an associated frame buffer for storing said combined three-dimensional computer graphics image.

8. (Canceled)

9. (Currently Amended) A system for presenting three-dimensional computer graphics images of a scene, comprising:

memory for storing a set of three-dimensional computer graphics data;

multiple graphics processing units for rendering substantially all of the set of three-dimensional computer graphics data that corresponds to portions of the scene that lie within rectangular subvolumes to which said multiple graphics processing units are assigned;

a bus for communicating a viewing position to each of said multiple graphics processing units, wherein the viewing position determines an aspect of the set of three-dimensional computer graphics data to be rendered; and

image combiners for combining the set of three-dimensional computer graphics data rendered by said multiple graphics processing units to produce a three-dimensional computer graphics image, wherein outputs from the multiple graphics processing units are direct inputs to first stage image combiners and outputs from at least two of the first stage image combiners are direct inputs to a second stage image combiner.

10. (Previously Presented) The system of claim 9, wherein said memory comprises memory cells such that each of said memory cells is accessible by only one of the multiple graphics processing units.

11. (Canceled)

12. (Canceled)

The listing of claims will replace all prior versions, and listings of claims in the application.